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**** WARNING ** WARNING ** WARNING ** WARNING ****
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May 25, 2006

04-SJ,Ala-205, 580-10.0/0.4,24.5/24.7,0.0/4.0
04-470804

Addendum No. 5

Dear Contractor:

This addendum is being issued to the contract for construction on State highway in ALAMEDA AND SAN JOAQUIN COUNTIES NEAR TRACY ON ROUTE 580 FROM 0.2 KM SOUTH OF SAN JOAQUIN COUNTY LINE TO 1.8 KM WEST OF GRANT LINE ROAD UNDERCROSSING AND ON ROUTE 205 FROM MIDWAY ROAD UNDERCROSSING TO CALIFORNIA AQUEDUCT BRIDGE.

Submit bids for this work with the understanding and full consideration of this addendum. The revisions declared in this addendum are an essential part of the contract.

Bids for this work will be opened on June 14, 2006.

This addendum is being issued revise the Project Plans, the Notice to Contractors and Special Provisions, and the Proposal and Contract.

Project Plan Sheets 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 39, 44, 45, 46, 47, 48, 52, 53, 61, 62, 63, 66, 72, 74, 75, 76, 146, and 147 are revised. Half-sized copies of the revised sheets are attached for substitution for the like-numbered sheets.

Project Plan Sheet 65 deleted.

In the Special Provisions, Section 10-1.01, "ORDER OF WORK," the following paragraphs are added after the second paragraph:

"The Contractor's operation shall be conducted so that public traffic has reasonable access through Midway Road at all times.

The Contractor's operation shall be conducted so that the temporary pavement delineation shall not be placed on open graded asphalt concrete surface."

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In the Special Provisions, Section 10-1.19, "TEMPORARY PAVEMENT DELINEATION," is revised as attached.

In the Special Provisions, Section 10-1.38, "TREATED PERMEABLE BASE," is deleted.

In the Special Provisions, Section 10-1.39, "ASPHALT CONCRETE," is revised as attached.

In the Special Provisions, Section 10-1.67, "EDGE DRAIN," is deleted.

In the Proposal and Contract, the Engineer's Estimate Items 27, 29, 39, 51, 52, 53, 54, 55, 57, 58, 59, 60, 64, 65, 85, 102, and 117 are revised, and Items 61, 108, 109, and 110 are deleted as attached.

To Proposal and Contract book holders:

Replace pages 4, 5, 6, 7 and 8 of the Engineer's Estimate in the Proposal with the attached revised pages 4, 5, 6, 7 and 8 of the Engineer's Estimate. The revised Engineer's Estimate is to be used in the bid.

Inquiries or questions in regard to this addendum must be communicated as a bidder inquiry and must be made as noted in the NOTICE TO CONTRACTORS section of the Notice to Contractors and Special Provisions.

Indicate receipt of this addendum by filling in the number of this addendum in the space provided on the signature page of the proposal.

Submit bids in the Proposal and Contract book you now possess. Holders who have already mailed their book will be contacted to arrange for the return of their book.

Inform subcontractors and suppliers as necessary.

This office is sending this addendum by UPS overnight mail to Proposal and Contract book holders to ensure that each receives it. A copy of this addendum is available for the contractor's use on the Internet Site:

http://www.dot.ca.gov/hq/esc/oe/weekly_ads/addendum_page.html

If you are not a Proposal and Contract book holder, but request a book to bid on this project, you must comply with the requirements of this letter before submitting your bid.

Sincerely,

ORIGINAL SIGNED BY

REBECCA D. HARNAGEL, Chief
Office of Plans, Specifications & Estimates
Office Engineer

Attachments

10-1.19 TEMPORARY PAVEMENT DELINEATION

Temporary pavement delineation shall be furnished, placed, maintained, and removed in conformance with the provisions in Section 12-3.01, "General," of the Standard Specifications and these special provisions. Nothing in these special provisions shall be construed as reducing the minimum standards specified in the MUTCD, the MUTCD California Supplement, or as relieving the Contractor from the responsibilities specified in Section 7-1.09, "Public Safety," of the Standard Specifications.

GENERAL

Whenever the work causes obliteration of pavement delineation, temporary or permanent pavement delineation shall be in place prior to opening the traveled way to public traffic. Lane pavement delineation shall be provided at all times for traveled ways open to public traffic. On multilane roadways (freeways) edge line delineation shall be provided at all times for traveled ways open to public traffic.

The Contractor shall perform the work necessary to establish the alignment of temporary pavement delineation, including required lines or marks. Surfaces to receive temporary pavement delineation shall be dry and free of dirt and loose material. Temporary pavement delineation shall not be applied over existing pavement delineation or other temporary pavement delineation. Temporary pavement delineation shall be maintained until superseded or replaced with a new pattern of temporary pavement delineation or permanent pavement delineation.

Temporary pavement markers, including underlying adhesive, and removable traffic tape which are applied to the final layer of surfacing or existing pavement to remain in place or which conflicts with a subsequent or new traffic pattern for the area shall be removed when no longer required for the direction of public traffic, as determined by the Engineer.

TEMPORARY LANELINE DELINEATION

Whenever lanelines are obliterated and temporary pavement delineation to replace the lines is not shown on the plans, the minimum lane line delineation to be provided for that area shall be pavement markers placed at longitudinal intervals of not more than 7.3 m. The pavement markers shall be the same color as the lane line the pavement markers replace. Pavement markers shall be, at the option of the Contractor, one of the permanent pavement markers listed in "Prequalified and Tested Signing and Delineation Materials" of these special provisions. The pavement markers shall be placed in conformance with the manufacturer's instructions. Pavement markers shall be cemented to the surfacing with the adhesive recommended by the manufacturer, except epoxy adhesive shall not be used to place the pavement markers in areas where removal of the temporary pavement markers will be required.

Full compensation for furnishing, placing, maintaining, and removing the pavement markers (including underlying adhesive, layout (dribble) lines to establish alignment of temporary pavement markers or used for temporary lane line for those areas where temporary lane line delineation is not shown on the plans and for providing equivalent patterns of permanent traffic lines for those areas when required, shall be considered as included in the contract prices paid for the items of work that obliterated the lane line pavement delineation and no separate payment will be made therefor.

TEMPORARY EDGE LINE DELINEATION

On multilane roadways (freeways and expressways), whenever edge lines are obliterated and temporary pavement delineation to replace those edge lines is not shown on the plans, the edge line delineation to be provided for those areas adjacent to lanes open to public traffic shall be as follows:

- A. Temporary pavement delineation for right edge lines shall, at the option of the Contractor, consist of either a solid 100-mm wide traffic stripe of the same color as the stripe the temporary edge line delineation replaces, or channelizers placed at longitudinal intervals not to exceed 30 m.
- B. Temporary pavement delineation for left edge lines shall, at the option of the Contractor, consist of either solid 100-mm wide traffic stripe of the same color as the stripe the temporary edge line delineation replaces, or channelizers placed at longitudinal intervals not to exceed 30 m or pavement markers placed at longitudinal intervals of not more than 1.8 m. Pavement markers used for temporary left edge line delineation shall be one of the types of permanent pavement markers listed in "Prequalified and Tested Signing and Delineation Materials" of these special provisions.

The lateral offset for channelizers used for temporary edgeline delineation shall be as determined by the Engineer. Channelizers used for temporary edgeline delineation shall be the surface mounted type and shall be orange in color. Channelizer bases shall be cemented to the pavement in the same manner provided for cementing pavement markers to pavement in "Pavement Markers" of these special provisions, except epoxy adhesive shall not be used to place channelizers on the top layer of pavement. Channelizers shall be, at the Contractor's option, one of the surface mount types (900 mm) listed in "Prequalified and Tested Signing and Delineation Materials" of these special provisions.

Temporary edgeline delineation shall be removed when no longer required for the direction of public traffic as determined by the Engineer.

The quantity of channelizers used as temporary edgeline delineation will not be included in the quantity of channelizers to be paid for. Full compensation for furnishing, placing, maintaining and removing temporary edgeline delineation for those areas where temporary edgeline delineation is not shown on the plans shall be considered as included in the contract prices paid for the items of work that obliterated the edgeline pavement delineation and no separate payment will be made therefor.

TEMPORARY TRAFFIC STRIPE (PAINT)

Temporary traffic stripe consisting of painted traffic stripe shall be applied and maintained at the locations shown on the plans. The painted temporary traffic stripe shall be complete in place at the location shown prior to opening the traveled way to public traffic. Removal of painted temporary traffic stripe will not be required.

Temporary painted traffic stripe shall conform to the provisions in "Paint Traffic Stripes and Pavement Markings" of these special provisions except for payment. At the option of the Contractor, either one or 2 coats shall be applied regardless of whether on new or existing pavement. At the Contractor's option, temporary removable striping tape listed in "Prequalified and Tested Signing and Delineation Materials" of these special provisions may be used instead of painted temporary traffic stripes. When traffic stripe tape is used in place of painted temporary traffic stripes, the tape will be measured and paid for by the meter as temporary traffic stripe (paint).

When painted traffic stripe is specified for temporary left edgeline delineation, pavement markers placed at longitudinal intervals of not more than 1.8 m may be used in place of the temporary painted traffic stripe. Pavement markers shall be one of the types of permanent pavement markers listed in "Prequalified and Tested Signing and Delineation Materials" of these special provisions. When reflective pavement markers are used in place of temporary painted traffic stripe, payment for those pavement markers will be made on the basis of the theoretical quantity of temporary traffic stripe (paint) required for the left edgeline the pavement markers replace.

TEMPORARY PAVEMENT MARKING (PAINT)

Temporary pavement marking consisting of painted pavement marking shall be applied and maintained at the locations shown on the plans. The painted temporary pavement marking shall be complete in place at the location shown prior to opening the traveled way to public traffic. Removal of painted temporary pavement marking will not be required.

Temporary painted pavement marking shall conform to the provisions in "Paint Traffic Stripes and Pavement Markings" of these special provisions, except for payment. At the option of the Contractor, either one or 2 coats shall be applied regardless whether on new or existing pavement.

At the Contractor's option, temporary removable pavement marking tape or permanent pavement marking tape listed in "Prequalified and Tested Signing and Delineation Materials" of these special provisions may be used instead of painted temporary pavement markings. When pavement marking tape is used, regardless of which type of tape is placed, the tape will be measured and paid for by the square meter as temporary pavement marking (paint).

TEMPORARY PAVEMENT MARKERS

Temporary pavement markers shall conform to the provisions of "Pavement Markers," of these special provisions and shall be applied at the locations shown on the plans. The pavement markers shall be applied complete in place at the locations shown prior to opening the traveled way to public traffic.

Temporary pavement markers shown on the plans shall be, at the option of the Contractor, one of the permanent pavement markers listed in "Prequalified and Tested Signing and Delineation Materials" of these special provisions.

Temporary pavement markers shall be placed in conformance with the manufacturer's instructions and shall be cemented to the surfacing with the adhesive recommended by the manufacturer, except epoxy adhesive shall not be used in areas where removal of the pavement markers will be required.

Where the temporary pavement delineation shown on the plans for lanelines consists entirely of a pattern of broken traffic stripe and pavement markers, the Contractor may use groups of the pavement markers in place of the painted temporary traffic stripe. The groups of pavement markers shall be spaced as shown on the plans for a similar pattern of permanent traffic line, except pavement markers shown to be placed in the gap between the broken traffic stripe shall be placed as part of the group to delineate the pattern of broken temporary traffic stripe. The kind of laneline delineation selected by the Contractor shall be continuous within a given location. Payment for those pavement markers used in place of temporary traffic stripe will be made on the basis of the theoretical length of the patterns temporary traffic stripe (paint).

MEASUREMENT AND PAYMENT

Temporary traffic stripe (paint) and temporary pavement marking (paint) will be measured and paid for in the same manner specified for paint traffic stripe (1-coat) and paint pavement marking (1-coat) in Section 84-3.06, "Measurement," and Section 84-3.07, "Payment," of the Standard Specifications.

Temporary pavement markers, shown on the plans, will be measured and paid for by the unit in the same manner specified for retroreflective pavement markers in Section 85-1.08, "Measurement," and Section 85-1.09, "Payment," of the Standard Specifications. Temporary pavement markers used for temporary laneline and centerline delineation for areas which are not shown on the plans will not be included in the quantities of temporary pavement markers to be paid for. Full compensation for removing temporary pavement markers, when no longer required, shall be considered as included in the contract unit price paid for temporary pavement marker and no separate payment will be made therefor.

10-1.39 ASPHALT CONCRETE

Asphalt concrete shall be Type A and shall conform to the provisions in Section 11-1, "Quality Control / Quality Assurance" of these special provisions.

Open graded asphalt concrete shall conform to the provisions in "Open Graded Asphalt Concrete" of these special provisions.

Surfacing of miscellaneous areas with asphalt concrete shall conform to the provisions in "Asphalt Concrete (Miscellaneous Areas)" of these special provisions.

The grade of asphalt binder to be mixed with aggregate for Type A asphalt concrete shall be PG Grade 64-10 and shall conform to the provisions in Section 92 of Section 11-2, "Asphalts" of these special provisions.

Paint binder (tack coat) shall be applied to existing surfaces to be surfaced and between layers of asphalt concrete, except when eliminated by the Engineer.

Paint binder (tack coat) shall be, at the option of the Contractor, either slow-setting asphaltic emulsion, rapid-setting asphaltic emulsion, or paving asphalt. Slow-setting asphaltic emulsion and rapid-setting asphaltic emulsion shall conform to the provisions in Section 39-8.02 of Section 11-1, "Quality Control / Quality Assurance," of these special provisions, and the provisions in Section 94, "Asphaltic Emulsions," of the Standard Specifications. When paving asphalt is used for paint binder; the grade will be determined by the Engineer. Paving asphalt shall be applied at a temperature of not less than 140°C or more than 175°C. Paving asphalt shall conform to the provisions in Section 39-8.02 of Section 11-1, "Quality Control / Quality Assurance," of these special provisions, and the provisions in Section 92, "Asphalts," of the Standard Specifications.

Paint binder (tack coat) shall be applied in the liter per square meter range limits specified for the surfaces to receive asphalt concrete in the tables below. The exact application rate within the range will be determined by the Engineer.

Application Rates for Asphaltic Emulsion Paint Binder (Tack Coat) on Asphalt Concrete (except Open Graded) and on Portland Cement Concrete Pavement (PCCP)		
Type of surface to receive Paint binder (tack coat)	Slow-Setting Asphaltic Emulsion L/m ² (Note A)	Rapid-Setting Asphaltic Emulsion L/m ² (Note B)
Dense, compact surfaces, between layers, and on PCCP	0.20 – 0.35	0.10 – 0.20
Open, textured or dry, Aged surfaces	0.35 – 0.90	0.20 – 0.40

Note A: Slow-setting asphaltic emulsion is asphaltic emulsion diluted with additional water. Water shall be added and mixed with the asphaltic emulsion (containing up to 43 percent water) so the resulting mixture contains one part asphaltic emulsion and not more than one part added water. The water shall be added by the emulsion producer or at a facility that has the capability to mix or agitate the combined blend.

Note B: Undiluted rapid-setting asphaltic emulsion

Application Rates for Paint Binder (Tack Coat) on Asphalt Concrete (except Open Graded) and on Portland Cement Concrete Pavement (PCCP)	
Type of surface to receive paint binder (tack coat)	Paving Asphalt L/m ²
Dense, compact surfaces, between layers, and on PCCP	0.05 – 0.10
Open, textured or dry, aged surfaces	0.10 – 0.25

The Contractor may obtain a copy of the Department's "Manual for Quality Control and Quality Assurance for Asphalt Concrete" at www.dot.ca.gov/hq/construc/qcqa.html.

The aggregate for Type A asphalt concrete shall conform to the 19-mm maximum, coarse grading specified in Section 39-2.02, "Aggregate," in Section 11-1, "Quality Control / Quality Assurance," of these special provisions.

In addition to the provisions in Section 39-9.01, "Spreading Equipment," in Section 11-1, "Quality Control / Quality Assurance," of these special provisions, asphalt paving equipment shall be equipped with automatic screed controls and a sensing device or devices.

When placing asphalt concrete to lines and grades established by the Engineer, the automatic controls shall control the longitudinal grade and transverse slope of the screed. Grade and slope references shall be furnished, installed, and maintained by the Contractor. A ski device shall be a rigid one piece unit with a minimum length of 9 meters and the entire length shall be utilized in activating the sensor.

When placing the initial mat of asphalt concrete on existing pavement, the end of the screed nearest the centerline shall be controlled by a sensor activated by a ski device not less than 9 m long. The end of the screed farthest from centerline shall be controlled by an automatic transverse slope device set to reproduce the cross slope designated by the Engineer.

When paving contiguously with previously placed mats, the end of the screed adjacent to the previously placed mat shall be controlled by a sensor that responds to the grade of the previously placed mat and will reproduce the grade in the new mat within a 3 mm tolerance. The end of the screed farthest from the previously placed mat shall be controlled in the same manner the screed was controlled when placing the initial mat.

If the methods and equipment furnished by the Contractor fail to produce a layer of asphalt concrete conforming to the provisions, including straightedge tolerance, in Section 39-10.04, "Compacting," in Section 11-1, "Quality Control / Quality Assurance," of these special provisions, the paving operations shall be discontinued and the Contractor shall modify the equipment or methods, or furnish substitute equipment.

If the automatic screed controls fail to operate properly during a day's work, the Contractor may use manual control of the spreading equipment for the remainder of that day. However, the equipment shall be corrected or replaced with alternative automatically controlled equipment conforming to the requirements in this section before starting another day's work.

In addition to the straightedge requirements in Section 39-10.04, "Compacting," in Section 11-1, "Quality Control / Quality Assurance," of these special provisions, asphalt concrete pavement shall conform to the surface tolerances specified herein.

The top surface of the uppermost layer of Type A asphalt concrete surfacing shall be profiled by the Contractor, in the presence of the Engineer. Two profiles shall be obtained in each lane. The profiles shall be approximately one meter from and parallel with the edge of the lane.

Profiles shall be performed using a California Profilograph or equivalent in conformance with the requirements in California Test 526 and as specified in these special provisions. Prior to beginning profiles, the profilograph shall be calibrated in the presence of the Engineer.

Asphalt concrete pavement shall conform to the following Profile Index requirements:

- A. Pavement on tangent alignment and pavement on horizontal curves having a centerline curve radius of 600 m or more shall have a Profile Index of 8 mm or less for each 0.1-km section profiled.
- B. Pavement on horizontal curves having a centerline curve radius of 300 m or more but less than 600 m, including the pavement within the superelevation transition of these curves, shall have a Profile Index of 16 mm or less for each 0.1-km section profiled.
- C. Pavement containing high point areas with deviations indicated by the profilograph in excess of 7.5 mm in a length of 7.5 m or less shall be corrected by the Contractor regardless of the Profile Index of the each 0.1-km section profiled.

Profile Index requirements will not apply to the following areas of asphalt concrete pavement, but these areas shall conform to the straightedge requirements in Section 39-10.04, "Compacting," in Section 11-1, "Quality Control / Quality Assurance," of these special provisions:

- A. Pavement on horizontal curves with a centerline curve radius of less than 300 m and pavement within the superelevation transition on those curves.
- B. Pavement with a total thickness of 75 mm or less.
- C. Pavement placed in a single lift when required by the special provisions.
- D. Pavement with extensive grade or cross slope correction which does not receive advance leveling operations in conformance with the provisions in Section 39-10.03, "Spreading," in Section 11-1, "Quality Control / Quality Assurance," of these special provisions.
- E. Pavement for ramps and connectors with steep grades and high rates of superelevation, as determined by the Engineer.
- F. Pavement on city or county streets and roads.
- G. Pavement on turn lanes and collector lanes that are less than 500 meters in length.
- H. Shoulders and miscellaneous areas.
- I. Pavement placed one meter from and parallel with the joint between asphalt concrete pavement and existing curbs, gutters or existing pavement.
- J. Pavement within 15 m of a transverse joint that separates the pavement from an existing pavement, approach slab or structure surface not constructed under the contract.

The Contractor shall complete initial runs of the profilograph prior to opening new pavement to public traffic. Profilograph operations shall be in conformance with the lane closure requirement in "Maintaining Traffic" of these special provisions. In the event that initial profiles can not be made prior to opening the pavement to public traffic, they shall be made the next day that lane closures are permitted for the area to be profiled.

Areas of the top surface of the uppermost layer of Type A asphalt concrete pavement that do not meet the specified surface tolerances shall be brought within tolerance by abrasive grinding. Abrasive grinding shall conform to the provisions in the first paragraph and the last 4 paragraphs in Section 42-2.02, "Construction," of the Standard Specifications, except that the grinding residue shall be disposed of outside the highway right of way.

Abrasive grinding shall be performed to reduce individual deviations in excess of 7.5 mm, and to reduce the Profile Index of the pavement to be within the specified tolerance. Deviations in excess of 7.5 mm which cannot be brought into specified tolerances by abrasive grinding shall be corrected by removal and replacement of asphalt concrete. Replacement pavement not meeting the specified tolerances shall be corrected by the methods specified above. Corrective work shall be at the Contractor's expense except that flagging costs will be paid for in conformance to the provisions in Section 12-2, "Flagging," of the Standard Specifications. . The Contractor shall profile the areas that have received abrasive grinding or corrective work until the final Profile Index of the area is within the specified tolerance.

When abrasive grinding is used to bring the top surface of the uppermost layer of asphalt concrete surfacing within the specified surface tolerances, additional abrasive grinding shall be performed as necessary to extend the area ground in each lateral direction so that the lateral limits of grinding are at a constant offset from, and parallel with, the nearest lane line or pavement edge, and in each longitudinal direction so that the grinding begins and ends at lines normal to the pavement centerline, within a ground area. Ground areas shall be neat rectangular areas of uniform surface appearance.

The original of the final profilograms that indicate the pavement surface is within the Profile Index specified shall become the property of the State and shall be delivered to the Engineer prior to acceptance of the contract.

Full compensation for performing profiles corrective work shall be considered as included in the contract price paid per tonne for asphalt concrete and no additional compensation will be allowed therefor.

The area to which paint binder has been applied shall be closed to public traffic. Care shall be taken to avoid tracking binder material onto existing pavement surfaces beyond the limits of construction. All paint binder applied or tracked beyond the limits of planned paving shall be removed by the Contractor at the Contractor's expense.

A vertical longitudinal joint of more than 45 mm will not be allowed at any time between adjacent lanes open to public traffic.

Where the existing pavement is to be widened by constructing a new structural section adjacent to the existing pavement, the new structural section shall be completed to match the elevation of the edge of the existing pavement at each location prior to spreading and compacting asphalt concrete over the adjacent existing pavement.

Shoulders adjacent to a lane being paved shall be surfaced prior to opening the lane to public traffic.

Attention is directed to "Rumble Strips," of these special provisions. Areas within shoulders in which rumble strips are constructed will not be subject to the provisions in Section 39-11.02, "Statistical Evaluation and Determination of Pay Factor," in Section 11-1, "Quality Control / Quality Assurance," of these special provisions.

ENGINEER'S ESTIMATE
04-470804

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
21 (S)	150711	REMOVE PAINTED TRAFFIC STRIPE	M	410		
22 (S)	150714	REMOVE THERMOPLASTIC TRAFFIC STRIPE	M	1710		
23 (S)	150715	REMOVE THERMOPLASTIC PAVEMENT MARKING	M2	12		
24 (S)	150722	REMOVE PAVEMENT MARKER	EA	5020		
25	150742	REMOVE ROADSIDE SIGN	EA	18		
26 (S)	150760	REMOVE SIGN STRUCTURE	EA	2		
27	150805	REMOVE CULVERT	M	490		
28	038091	REMOVE CLEANOUT	EA	4		
29	150820	REMOVE INLET	EA	9		
30	150821	REMOVE HEADWALL	EA	2		
31	150823	REMOVE DOWNDRAIN	EA	1		
32	150857	REMOVE ASPHALT CONCRETE SURFACING	M2	855		
33	150859	REMOVE ASPHALT CONCRETE OVERSIDE DRAIN	M	21		
34	038092	REMOVE ASPHALT CONCRETE DITCH	M	47		
35	152299	RESET MILEPOST MARKER	EA	2		
36	152320	RESET ROADSIDE SIGN	EA	1		
37	152390	RELOCATE ROADSIDE SIGN	EA	1		
38	152602	MODIFY HEADWALL	EA	1		
39 (S)	153103	COLD PLANE ASPHALT CONCRETE PAVEMENT	M2	6080		
40	153230	REMOVE CONCRETE BARRIER (TYPE 50)	M	690		

ENGINEER'S ESTIMATE
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Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
41	157560	BRIDGE REMOVAL (PORTION)	LS	LUMP SUM	LUMP SUM	
42	160101	CLEARING AND GRUBBING	LS	LUMP SUM	LUMP SUM	
43	170101	DEVELOP WATER SUPPLY	LS	LUMP SUM	LUMP SUM	
44	190101	ROADWAY EXCAVATION	M3	83 600		
45	190105	ROADWAY EXCAVATION (TYPE Z-2) (AERIALY DEPOSITED LEAD)	M3	1840		
46	190110	LEAD COMPLIANCE PLAN	LS	LUMP SUM	LUMP SUM	
47 (F)	192003	STRUCTURE EXCAVATION (BRIDGE)	M3	516		
48 (F)	193003	STRUCTURE BACKFILL (BRIDGE)	M3	413		
49 (F)	197021	EARTH RETAINING STRUCTURE, LOCATION A	M2	976		
50 (F)	197022	EARTH RETAINING STRUCTURE, LOCATION B	M2	953		
51	198007	IMPORTED MATERIAL (SHOULDER BACKING)	M3	660		
52 (S)	202007	DUFF	HA	4.4		
53 (S)	203003	STRAW (EROSION CONTROL)	TONN	26		
54 (S)	203014	FIBER (EROSION CONTROL)	KG	2400		
55 (S)	203024	COMPOST (EROSION CONTROL)	M3	140		
56 (S)	203026	MOVE-IN/MOVE-OUT (EROSION CONTROL)	EA	16		
57 (S)	203045	PURE LIVE SEED (EROSION CONTROL)	KG	120		
58 (S)	203056	COMMERCIAL FERTILIZER (EROSION CONTROL)	KG	660		
59 (S)	203061	STABILIZING EMULSION (EROSION CONTROL)	KG	660		
60	260201	CLASS 2 AGGREGATE BASE	M3	29 500		

ENGINEER'S ESTIMATE
04-470804

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
61	BLANK					
62	390095	REPLACE ASPHALT CONCRETE SURFACING	M3	700		
63	390115	ASPHALT CONCRETE (BRIDGE)	TONN	148		
64	390152	ASPHALT CONCRETE	TONN	27 900		
65	390165	ASPHALT CONCRETE (OPEN GRADED)	TONN	4260		
66	394002	PLACE ASPHALT CONCRETE (MISCELLANEOUS AREA)	M2	110		
67	394044	PLACE ASPHALT CONCRETE DIKE (TYPE C)	M	120		
68	394046	PLACE ASPHALT CONCRETE DIKE (TYPE D)	M	2060		
69	394048	PLACE ASPHALT CONCRETE DIKE (TYPE E)	M	2210		
70	394049	PLACE ASPHALT CONCRETE DIKE (TYPE F)	M	38		
71	394052	SHOULDER RUMBLE STRIP (AC, ROLLED-IN INDENTATIONS)	M	460		
72	394054	SHOULDER RUMBLE STRIP (AC, GROUND-IN INDENTATIONS)	M	8570		
73	397001	ASPHALTIC EMULSION (PAINT BINDER)	TONN	49		
74	490505	FURNISH STEEL PILING (HP 250 X 62)	M	66		
75 (S)	490506	DRIVE STEEL PILE (HP 250 X 62)	EA	8		
76	490511	FURNISH STEEL PILING (HP 250 X 85)	M	863		
77 (S)	490512	DRIVE STEEL PILE (HP 250 X 85)	EA	39		
78 (S)	040111	1.98 M CAST-IN DRILLED-HOLE CONCRETE PILING	M	127		
79 (S)	040112	2.28 M CAST-IN DRILLED-HOLE CONCRETE PILING	M	107		
80 (S)	500001	PRESTRESSING CAST-IN-PLACE CONCRETE	LS	LUMP SUM	LUMP SUM	

ENGINEER'S ESTIMATE
04-470804

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
81 (F)	510051	STRUCTURAL CONCRETE, BRIDGE FOOTING	M3	114		
82 (F)	510053	STRUCTURAL CONCRETE, BRIDGE	M3	3972		
83 (F)	510072	STRUCTURAL CONCRETE, BARRIER SLAB	M3	478		
84 (F)	510086	STRUCTURAL CONCRETE, APPROACH SLAB (TYPE N)	M3	111		
85 (F)	510502	MINOR CONCRETE (MINOR STRUCTURE)	M3	102		
86	511106	DRILL AND BOND DOWEL	M	210		
87	040113	DRILLED HOLE (50 MM)	M	51		
88 (S)	040114	PTFE/ELASTOMERIC BEARING	EA	4		
89 (S)	519129	JOINT SEAL ASSEMBLY (MR 101 MM - 160 MM)	M	36		
90	519133	JOINT SEAL (ASPHALTIC PLUG)	M	115		
91 (S-F)	520102	BAR REINFORCING STEEL (BRIDGE)	KG	681 882		
92 (S)	750041	ISOLATION CASING	KG	21 242		
93 (F)	560218	FURNISH SIGN STRUCTURE (TRUSS)	KG	12 400		
94 (S-F)	560219	INSTALL SIGN STRUCTURE (TRUSS)	KG	12 400		
95 (S)	561008	760 MM CAST-IN-DRILLED-HOLE CONCRETE PILE (SIGN FOUNDATION)	M	4.5		
96 (S)	561009	920 MM CAST-IN-DRILLED-HOLE CONCRETE PILE (SIGN FOUNDATION)	M	4.5		
97 (S)	038093	1524 MM CIDH CONCRETE PILE (SIGN FOUNDATION)	M	14		
98	566011	ROADSIDE SIGN - ONE POST	EA	22		
99	566012	ROADSIDE SIGN - TWO POST	EA	5		
100	568023	INSTALL ROADSIDE SIGN (LAMINATED WOOD BOX POST)	EA	3		

ENGINEER'S ESTIMATE
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Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
101	641132	300 MM PLASTIC PIPE	M	12		
102	650069	450 MM REINFORCED CONCRETE PIPE	M	390		
103	650075	600 MM REINFORCED CONCRETE PIPE	M	13		
104	650077	750 MM REINFORCED CONCRETE PIPE	M	33		
105	664016	450 MM CORRUGATED STEEL PIPE (2.77 MM THICK)	M	290		
106	664022	600 MM CORRUGATED STEEL PIPE (3.51 MM THICK)	M	170		
107	664030	750 MM CORRUGATED STEEL PIPE (3.51 MM THICK)	M	20		
108	BLANK					
109	BLANK					
110	BLANK					
111	705044	450 MM STEEL FLARED END SECTION	EA	7		
112	705045	600 MM STEEL FLARED END SECTION	EA	2		
113	705222	450 MM CONCRETE FLARED END SECTION	EA	1		
114	707051	DRAINAGE MANHOLE	EA	2		
115	721008	ROCK SLOPE PROTECTION (LIGHT, METHOD B)	M3	44		
116	729010	ROCK SLOPE PROTECTION FABRIC	M2	160		
117 (S-F)	750001	MISCELLANEOUS IRON AND STEEL	KG	4692		
118 (S)	750498	MISCELLANEOUS METAL (RESTRAINER - CABLE TYPE)	KG	2139		
119 (S-F)	750501	MISCELLANEOUS METAL (BRIDGE)	KG	5393		
120 (S)	038095	FENCE (TYPE WM, METAL POST) MODIFIED	M	1040		